

## Laboratory And Clinical Teaching Experience Of Nursing Professors In The Covid-19 Pandemic Era

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### Abstract

*During the COVID-19 pandemic, nursing professors faced challenges in maintaining educational standards and adapting to new teaching methods. This study aimed to investigate how nursing professors in experienced teaching in laboratory and clinical settings during this period. Through focus group interviews with 19 professors, several themes emerged: feeling overwhelmed by infection management protocols, uncertainty about the effectiveness of virtual training, acceptance of change, and preparations for future teaching methods. The findings suggest a need for increased use of technology in nursing education post-pandemic, along with a shift in teachers' roles and institutional attitudes. Nursing professors should use these experiences to improve practical education in the future.*

### Introduction

The global impact of the COVID-19 pandemic has significantly disrupted various sectors, including the economy, healthcare, and education. This outbreak, characterized by its high transmission rate, led to widespread measures such as social distancing, isolation, and travel restrictions, causing a halt in face-to-face activities. Education, in particular, faced substantial challenges as schools and universities had to abruptly transition to remote learning to ensure continuity in the learning process. (Akkermans et al., 2020)

While online education has been in existence for some time, the pandemic accelerated its adoption worldwide. Despite advancements in educational technology and the availability of

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online platforms, universities encountered difficulties in fully replicating the traditional classroom experience online. This shift posed challenges such as digital divide issues among students, unstable internet connections, and the limitations of teaching practical subjects like medicine, nursing, and engineering virtually. (Dewart et al., 2020)

Nursing education, which heavily relies on clinical practice, faced significant disruptions due to the pandemic-related restrictions. With clinical practice halted in many nursing departments, finding effective measures to resume safe clinical operations became imperative. Additionally, the pandemic highlighted the importance of maintaining the quality of education and adapting teaching methods to ensure students receive a comprehensive learning experience. (Dhawan, 2020)

In this context, this study focuses on exploring the experiences of nursing professors in laboratory and clinical teaching during the pandemic era. It recognizes the need to address contemporary challenges and provide insights for improving educational practices. Using focus group interviews, this study aims to gain a deeper understanding of nursing professors' experiences and reflections on teaching during this challenging period, with a focus on shaping the future of nursing education. (Onyema et al., 2020)

## **Methods**

### **Design**

This qualitative investigation utilized Braun and Clarke's thematic analysis method to delve into nursing professors' experiences in laboratory and clinical teaching amid the COVID-19 pandemic. The study adhered to the Consolidated Criteria for Reporting Qualitative Studies, focusing on interviews and focus groups for data collection.

### **Participants**

The study included nursing professors with teaching experience in laboratories and clinical settings. Inclusion criteria encompassed tenure, a minimum of 3 years in teaching, and activity . Sabbatical or research years and extended breaks from teaching were exclusion criteria. Recruitment occurred through online announcements , aiming for 5–8 participants per focus group.

Nineteen female participants in their 30s to 50s met the criteria, representing various nursing practice areas like fundamentals, adult, pediatric, women's health, psychiatric, community nursing, and simulation practice.

### **Ethics**

The study received approval from ethical committee. Participants were assured of confidentiality, voluntary participation, and the right to withdraw. They were informed that transcripts would solely serve research purposes.

### **Data Collection**

Data collection took place through focus group interviews, each comprising 4–6 participants and lasting approximately 60–90 minutes. Interviews were conducted online, recorded with consent, and transcribed. Additional information was obtained via telephone or messages. Interviews were facilitated in comfortable online settings, allowing participants to use pseudonyms and control camera usage.

### **Data Analysis**

Thematic analysis, following Braun and Clarke's method, guided the analysis of transcribed interview content. The process involved familiarization with the data, initial coding, searching for themes, investigating code relationships, defining and naming themes, and writing the report. Two researchers independently coded the data for reliability.

## **Results**

The analysis yielded 48 subcategories and nine categories, which were further grouped into four main themes: (1) feeling helpless in the infection management system, (2) uncertainty about the effectiveness of alternative practice training, (3) acceptance of changes, and (4) preparation for future practice training (Table 1).

### **Feeling helpless in the infection management system**

Participants faced unpredictable situations due to inconsistent infection control guidelines, leading to difficulties in decision-making and persistently tense circumstances. The limitations of class management were evident, including concerns about infection, students' anxiety, challenges in maintaining distance during practice operations, increased workload, burnout, and resignation.

### **Uncertainty about the effectiveness of alternative practice training**

Participants struggled with alternative practice training, facing challenges like lack of support from schools, educational content shortages, faculty shortages, difficulties in adjusting evaluation methods, concerns about practice quality, graduation without clinical practice, diminished student practical skills, guilt about students, and negative feedback from students.

### **Acceptance of changes**

While initially grappling with feelings of helplessness and uncertainty, participants started to reconsider traditional practice methods. They acknowledged the limitations of traditional practices and recognized the feasibility of new practice training methods, leading to increased student interest and confidence, a safe educational environment, and expanded technical support.

### **Preparation for future practice training**

Participants emphasized the need for technology-based curriculum development tailored to digital native learners, industry-university cooperation for exchanging information on new practice methods, clinical advice, and the establishment of a network for developing educational content. They emphasized the importance of responding to the changing practice training environment to prepare for future education needs.

## **Discussion**

This study delved into the experiences of nursing professors in laboratory and clinical teaching during the COVID-19 pandemic. Through the analysis of focus group interviews, four themes emerged: feeling helpless in the infection management system, uncertainty about the effectiveness of alternative practice training, acceptance of changes, and preparation for future practice training. (Saraji et al., 2022)

The participants faced significant challenges due to the ever-changing infection management guidelines related to COVID-19. This led to unpredictable situations where laboratory and clinical education had to be halted abruptly, mirroring experiences in nursing colleges globally.

The strict credit completion criteria in universities added pressure, forcing professors to adapt by minimizing class sizes, transitioning to online formats, and managing increased workloads. This situation resulted in burnout among professors, impacting their mental well-being and potentially affecting the quality of education. (Goh & Sandars, 2020)

To mitigate these challenges, institutions should consider providing additional support to educators, including emotional support and resources such as additional faculty members. Workshops or programs aimed at enhancing emotional resilience could also be beneficial in improving the overall emotional environment within universities. (Chakraborty et al., 2021)

The sudden shift to non-face-to-face education posed significant uncertainties regarding its efficacy. Participants struggled with limited support from educational institutions, leading to concerns about the quality of education and the ethical dilemma of graduating students without sufficient clinical practice. The prolonged pandemic further complicated matters, limiting students' exposure to essential practical skills and collaborative learning experiences. (Iglesias-Pradas et al., 2021)

Addressing these challenges requires a strategic approach to non-face-to-face education, including adequate support from institutions, careful planning of educational content, and ethical considerations regarding students' learning outcomes. Effective strategies should be developed to ensure that alternative training methods are equivalent to traditional clinical practice and meet the necessary educational standards. (Bdair, 2021)

Despite initial uncertainties, participants started recognizing the potential of non-face-to-face education. They explored various technological tools and teaching methods, adapting to the new learning environment. This shift prompted a reconsideration of traditional teaching methods, emphasizing the need for a flexible and adaptable approach to education. (Asgari et al., 2021)

This acceptance of change signifies a broader trend in education toward integrating technology and innovative teaching methods. Universities should capitalize on this momentum by incorporating digital technologies into their curricula while maintaining the unique aspects of on-campus education. Collaboration with online universities and leveraging educational technology can enhance the learning experience for students and prepare them for future challenges. (Jayara, 2020)

Looking ahead, participants emphasized the importance of preparing for future practice training in a post-pandemic world. This includes developing technology-based curricula tailored to digital-native learners, fostering industry-academic cooperation, and establishing networks for educational content development. (Wahab & Iskandar, 2020)

Nursing educators play a crucial role in shaping the future of nursing practice education. They must adapt to changing educational paradigms, embrace technology, and provide a supportive learning environment for students. This preparation is essential to ensure that nursing education remains relevant, effective, and responsive to emerging challenges. (Efriana, 2021)

## **Conclusion**

In conclusion, this study highlights the complex experiences of nursing professors during the COVID-19 pandemic and the ongoing evolution of nursing practice education. While the challenges were significant, they also spurred innovation and adaptation in teaching methods. Moving forward, nursing education must continue to evolve, incorporating technology, collaboration, and flexible teaching approaches to prepare students for future healthcare environments.

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